

## NATURE NOTES.

June 19th.—A most memorable day. Mr. Thornley took us out with him to Troutbeck for purposes of nature study. We went up by Stock Ghyll, and soon found our way into the meadows under Wansfell. It was a sunny morning, and all kinds of insects were on the wing, among them members of the pretty little "Leptis," or fern web beetle. We stayed for some minutes searching for larvæ in a sparkling burn. There we found the curious larvæ of May-flies, fresh water shrimps, and the water spider, which is really a bug. We found beetle larvæ, too, which are to be recognised by their having only three pairs of legs.

On the margin of the stream we found several little green grasshoppers (*Parallelis sternobothris*). A little further on we stopped to look at a little group of ferns. The sweet mountain fern, the lady fern, and the male were growing side by side. The first is to be recognised at once by the arrangement of the scori at the back of the pinnæ. They are all round the margins, whereas in other ferns they occur up the centre. We noticed some smother-flies on the alder. These exude a waxy stuff from their bodies which looks like cotton-down, and serves as a protection against marauders.

We examined the smooth meadow grass (*Poa pratensis*), and discovered that the difference between that and the "*Poa sylvatica*" lay in the length of the ligule, the former having quite a short one.

On the higher slopes we saw several species of daddy-long-legs; one a huge creature, "*Tipula gigantea*." The grubs of these feed on the roots of grass.

Several of the small heath butterflies were flying about in their feeble uncertain way, and we noticed that when they settled they always leaned to the left side. It was on this side of Wansfell that we found the long-horned beetle that bores in pine and fir trees.

We were much entertained at this spot by passing our fingers up the "*Juncus articulatus*," or "Jointed rush"; by so doing we could distinctly feel the different joints.

The mountain rushes are most interesting. We found amongst other treasures the "*Luzula pilosa*." It is a very hairy bog-rush. The "*Juncus squarrosus*" is very noticeable; the leaves go out in every conceivable direction.

We reached Troutbeck towards 3 p.m. There we had tea, and returned home by Jenkins Crag. We were much distressed to see the hazel trees in Dove's Nest Wood so despoiled by the caterpillar of the mottled umber moth (*Hibernia defoliaria*). The caterpillar of the winter moth was also doing very destructive work.

At last this happy day came to an end, leaving us well stored with information which will help us in further investigation and inspire us in future study.

